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INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

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Sheet 1 of 14

## Complete If Known

Application Number	10/773,916
Filing Date	February 6, 2004
First Named Inventor	Gjalt W. Hulsman
Group Art Unit	1652
Examiner Name	Charles L. Patterson, Jr.
Attorney Docket Number	MBX 017 CON (2)

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
		4,430,430		Momose, et al.	02-07-1989	
		4,878,331		Doi	10-24-1989	
		5,245,023		Peoples, et al.	09-14-1993	
		5,250,430		Peoples, et al.	10-05-1993	
		5,286,842		Kimura	02-15-1994	
		5,292,860		Shiotani et al	03-08-1994	
		5,378,616		Tujimoto, et al.	01-03-1995	
		5,461,139		Gonda, et al.	10-24-1995	
		5,502,273		Bright, et al.	03-28-1996	
		5,516,883		Hori, et al.	05-14-1996	
		5,634,432		Peoples, et al.	07-09-1996	
		5,663,239		Hubbs, et al.	10-06-1996	
		5,602,321		John	02-11-1997	
		5,610,041		Somerville, et al.	03-11-1997	
		5,650,555		Somerville, et al.	07-22-1997	
		5,663,063		People, et al.	09-02-1997	
		8,117,658		Dennis et al.	09-12-2000	

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>4</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
		CA	2,006,508		Xerox	03-26-1996		
		WO	91/00917		Mass. Inst. Tech.	01-24-1991		
		WO	92/19747		Imperial Chem. Ind. PLC	11-12-1992		
		WO	93/02187		Michigan State Univ.	07-13-1992		
		WO	93/02194		Imperial Chem. Ind. PLC	07-15-1992		
		WO	93/06225		Ctr. Innovative Technology	04-01-1993		
		WO	94/11519		Zeneca Limited	05-28-1994		
		WO	94/12014		Agraceius, Inc.	06-09-1994		
		WO	95/20614		Procter & Gamble	11-15-1994		
		WO	95/20615		Procter & Gamble	08-03-1995		
		WO	96/20621		FACO	07-11-1996		

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Filing Date	February 6, 2004		
First Named Inventor	Gjalt W. Hulsmann		
Group Art Unit	1652		
Examiner Name	Charles L. Patterson, Jr.		
Sheet	2	of	14
		Attorney Docket Number	MBX 017 CON (2)

OTHER ART - NON PATENT LITERATURE DOCUMENTS		
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		ABE, et al., "Biosynthesis from gluconate of a random copolyester consisting of 3-hydroxybutyrate and medium-chain-length 3-hydroxyalkanoates by <i>Pseudomonas</i> sp. 61-3.," <i>Int. J. Biol. Macromol.</i> 16:115-119 (1994).
		AIDOO, et al., "Cloning, sequencing and disruption of a gene from <i>Streptomyces clavuligerus</i> involved in clavulanic acid biosynthesis," <i>Gene</i> 147:41 (1994).
		ALLEN, et al., "DNA sequence of the <i>putA</i> gene from <i>Salmonella typhimurium</i> : a bifunctional membrane-associated dehydrogenase that binds DNA," <i>Nucleic Acids Res.</i> 21:1676 (1993).
		AMARASINGHAM & DAVIS, "Regulation of alpha-ketoglutarate dehydrogenase formation in <i>Escherichia coli</i> ," <i>J. Biol. Chem.</i> 240: 3664-3668 (1965).
		AMOS & MCINEREY, "Composition of poly-β-hydroxyalkanoate from <i>Syntrophomonas wolfei</i> grown on unsaturated fatty acid substrates," <i>Arch. Microbiol.</i> 155:103-05 (1991).
		AMURO, et al., "Isolation and characterization of the two distinct genes for human glutamate dehydrogenase," <i>Biochem. Biophys. Acta</i> 1049: 216-218 (1990).
		ANDRÉ AND JAUNIAUX, "Nucleotide sequence of the yeast UGA1 gene encoding GABA transaminase," <i>Nucl. Acid Res.</i> 18:3049 (1990).
		BARTSCH, et al., "Molecular analysis of two genes of the <i>Escherichia coli</i> gab cluster: nucleotide sequence of the glutamate:succinic semialdehyde transaminase gene ( <i>gabT</i> ) and characterization of the succinic semialdehyde dehydrogenase gene ( <i>gabD</i> )," <i>J. Bacteriol.</i> 172:7035-7042 (1990).
		BAUM, et al., "A plant glutamate decarboxylase containing a calmodulin binding domain. Cloning, sequence, and functional analysis," <i>J. Biol. Chem.</i> 268:19610-19617 (1993).
		BELL AND MALMBERG, "Analysis of a cDNA encoding arginine decarboxylase from oat reveals similarity to the <i>Escherichia coli</i> arginine decarboxylase and evidence of protein processing," <i>Mol. Gen. Genet.</i> 224:431 (1990).

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		Filing Date	February 6, 2004
		First Named Inventor	Gjalt W. Huisman
		Group Art Unit	1652
		Examiner Name	Charles L. Patterson, Jr.
Sheet	3	of	14
		Attorney Docket Number	MBX 017 CON (2)

## OTHER ART - NON PATENT LITERATURE DOCUMENTS

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		BENACHENHOU-LAHFA, et al., "PCR-mediated cloning and sequencing of the gene encoding glutamate dehydrogenase from the archaeon Sulfolobus shibatae: Identification of putative amino-acid signatures for extremophilic adaptation," <i>Gene</i> 140: 17-24 (1994).	
		BLATTNER, et al., "The complete genome sequence of <i>Escherichia coli</i> K-12," <i>Science</i> 277:1453 (1997).	
		BOTSFORD, et al., "Accumulation of glutamate by <i>Salmonella typhimurium</i> in response to osmotic stress," <i>Appl. Environ. Microbiol.</i> 60:2568 (1994).	
		BRANDL, et al., "Ability of the phototrophic bacterium <i>Rhodospirillum rubrum</i> to produce various poly (beta-hydroxyalkanoates): potential sources for biodegradable polyesters," <i>Int. J. Biol. Macromol.</i> 11:49-55 (1989).	
		BU, et al., "The exon-intron organization of the genes (GAD1 and GAD2) encoding two human glutamate decarboxylases (GAD67 and GAD65) suggests that they derive from a common ancestral GAD," <i>Genomics</i> 21:222-228 (1994).	
		BULT, et al., "Complete genome sequence of the methanogenic archaeon, <i>Methanococcus jannaschii</i> ," <i>Science</i> 273:1058-1073 (1996).	
		CHANG, et al., "Nucleotide Sequence of cDNA (Accession No. U63832) Encoding Arginine Decarboxylase from Carnation Flowers," <i>Plant Physiol.</i> 112:863 (1996).	
		CHAVEZ, et al., "The-NADP-glutamate dehydrogenase of the cyanobacterium <i>Synechocystis</i> 6803: cloning, transcriptional analysis and disruption of the gdhA gene," <i>Plant Mol. Biol.</i> 28:173-188 (1995).	
		CHEN & MALOY, "Regulation of proline utilization in enteric bacteria: cloning and characterization of the <i>Klebsiella</i> put control region," <i>J. Bacteriol.</i> 173:783 (1991).	
		CHO, et al., "Identification of <i>Agrobacterium tumefaciens</i> genes that direct the complete catabolism of octopine," <i>J. Bacteriol.</i> 178:1872 (1996).	

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Filing Date	February 6, 2004		
First Named Inventor	Gjalt W. Huisman		
Group Art Unit	1652		
Examiner Name	Charles L. Patterson, Jr.		
Sheet	4	of	14
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		CHU, et al., "Enzymatically active truncated cat brain glutamate decarboxylase: expression, purification, and absorption spectrum," <i>Arch. Biochem. Biophys.</i> 313:287-295 (1994).	
		COCK, et al., "A nuclear gene with many introns encoding ammonium-inducible chloroplastic NADP-specific glutamate dehydrogenase(s) in <i>Chlorella sorokiniana</i> ," <i>Plant Mol. Biol.</i> 17:1023-144 (1991).	
		COGONI, et al., "Saccharomyces cerevisiae has a single glutamate synthase gene coding for a plant-like high-molecular-weight polypeptide," <i>J. Bacteriol.</i> 177:792 (1995).	
		COLE, et al., "Deciphering the biology of <i>Mycobacterium tuberculosis</i> from the complete genome sequence," <i>Nature</i> 393:537 (1998).	
		DECKERT, et al., "The complete genome of the hyperthermophilic bacterium <i>Aquifex aeolicus</i> ," <i>Nature</i> 392:353 (1998).	
		DELAUNAY & VERMA, "A soybean gene encoding delta 1-pyrroline-5-carboxylate reductase was isolated by functional complementation in <i>Escherichia coli</i> and is found to be osmoregulated," <i>Mol. Gen. Genet.</i> 221:209 (1990).	
		DESMET, et al., "Characterization of intracellular inclusions formed by <i>Pseudomonas oleovorans</i> during growth on octane," <i>J. Bacteriol.</i> 154:870-878 (1983).	
		DIRUGGIERO, et al., "Expression and in vitro assembly of recombinant glutamate dehydrogenase from the hyperthermophilic archaeon <i>Pyrococcus furiosus</i> ," <i>Appl. Environ. Microbiol.</i> 61:169-164 (1995).	
		DOI, "Microbial Synthesis, Physical Properties, and Biodegradability of Polyhydroxyalkanoates," <i>Macromol. Symp.</i> 98:585-599 (1995).	
		DOI, et al., "Biosynthesis and characterization of poly(3-hydroxybutyrate-co-4-hydroxybutyrate) in <i>Alcaligenes eutrophus</i> ," <i>Int. J. Biol. Macromol.</i> 12: 106 (1990).	

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		DOI, et al., "Nuclear Magnetic Resonance Studies on Unusual Bacterial Copolymers of 3-Hydroxybutyrate and 4-Hydroxybutyrate," <i>Macromolecules</i> 21:2722-2727 (1988).	
		DUNCAN, et al., "Purification and properties of NADP-dependent glutamate dehydrogenase from <i>Ruminococcus flavefaciens</i> FD-1," <i>Appl. Environ. Microbiol.</i> 58:4032-4037 (1992).	
		EGGEN, et al., "The glutamate dehydrogenase-encoding gene of the hyperthermophilic archaeon <i>Pyrococcus furiosus</i> : sequence, transcription and analysis of the deduced amino acid sequence," <i>Gene</i> 132:143-148 (1993).	
		FILETICI, et al., "Sequence of the GLT1 gene from <i>Saccharomyces cerevisiae</i> reveals the domain structure of yeast glutamate synthase," <i>Yeast</i> 12:1359 (1996).	
		FLEISCHMANN, et al., "Whole-genome random sequencing and assembly of <i>Haemophilus influenzae</i> Rd," <i>Science</i> 269:496 (1995).	
		GALLEGO, et al., "A role for glutamate decarboxylase during tomato ripening: the characterisation of a cDNA encoding a putative glutamate decarboxylase with a calmodulin-binding site," <i>Plant Mol. Biol.</i> 27:1143-1151 (1995).	
		GALLOWAY, et al., "Phylogenetic utility of the nuclear gene arginine decarboxylase: an example from Brassicaceae," <i>Mol. Biol. Evol.</i> 15(10):1312-20 (1998).	
		GASSER & FRALEY, "Genetically Engineering Plants for Crop Improvement," <i>Science</i> 244:1293-1299 (1989).	
		GERNGROSS, et al., "Enzyme-catalyzed synthesis of poly[(R)-(-)-3-hydroxybutyrate]: formation of macroscopic granules in vitro," <i>Proc. Natl. Acad. Sci. USA</i> 92:6279 (1995).	
		GERNGROSS, et al., "Overexpression and purification of the soluble polyhydroxyalcanoate synthase from <i>Alcaligenes eutrophus</i> : evidence for a required posttranslational modification for catalytic activity," <i>Biochemistry</i> 33: 9311 (1994).	

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		GONZALES, et al., "Cloning of a yeast gene coding for the glutamate synthase small subunit (GUS2) by complementation of <i>Saccharomyces cerevisiae</i> and <i>Escherichia coli</i> glutamate auxotrophs," <i>Mol. Microbiol.</i> 6:301-308 (1992).	
		GREGERSON, et al., "Molecular characterization of NADH-dependent glutamate synthase from alfalfa nodules," <i>Plant Cell</i> 5:215 (1993).	
		HEIN, et al., "Biosynthesis of poly(4-hydroxybutyric acid) by recombinant strains of <i>Escherichia coli</i> ," <i>FEMS Microbiol. Lett.</i> 153:411-418 (1997).	
		HERRERO, et al., "Transposon vectors containing non-antibiotic resistance selection markers for cloning and stable chromosomal insertion of foreign genes in gram-negative bacteria," <i>J. Bacteriol.</i> 172:6557-6567 (1990).	
		HIRAMITSU, et al., "Production of Poly(3-hydroxybutyrate-co-4-hydroxybutyrate) by <i>Acaligenes Latus</i> ," <i>Biotechnol. Lett.</i> 15:481 (1993).	
		JESUDASON & MARCHESSAULT, "Synthetic Poly[(R,S)-3-hydroxyalkanoates] with Butyl and Hexyl Side Chains," <i>Macromolecules</i> 27:2595-602 (1994).	
		JIMENEZ-ZURDO, et al., "The <i>Rhizobium meliloti</i> putA gene: Its role in the establishment of the symbiotic interaction with alfalfa," <i>Mol. Microbiol.</i> 23:85 (1997).	
		JOHNSTON, et al., "Complete nucleotide sequence of <i>Saccharomyces cerevisiae</i> chromosome VIII," <i>Science</i> 265:2077 (1994).	
		KANEKO, et al., "Sequence analysis of the genome of the unicellular cyanobacterium <i>Synechocystis</i> sp. strain PCC6803. II. Sequence determination of the entire genome and assignment of potential protein-coding regions," <i>DNA Res.</i> 3:109 (1996).	
		KATO, et al., "Open reading frame 3 of the barotolerant bacterium strain DSS12 is complementary with cydD in <i>Escherichia coli</i> : cydD functions are required for cell stability at high pressure," <i>J. Biochem.</i> 120:301 (1996).	

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**INFORMATION DISCLOSURE  
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Sheet 7 of 14

Application Number	10/773,916
Filing Date	February 6, 2004
First Named Inventor	Gjalt W. Huisman
Group Art Unit	1652
Examiner Name	Charles L. Patterson, Jr.
Attorney Docket Number	MBX 017 CON (2)

**OTHER ART – NON PATENT LITERATURE DOCUMENTS**

Examiner's Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
		KATO, et al., "Production of a novel copolyester of 3-hydroxybutyric acid with a medium-chain-length 3-hydroxyalcanoic acids by <i>Pseudomonas</i> sp. 61-3 from sugars," <i>Appl. Microbiol. Biotechnol.</i> 45:363-70 (1998).	
		KEUNTJE, et al., "Expression of the <i>putA</i> gene encoding proline dehydrogenase from <i>Rhodobacter capsulatus</i> is independent of <i>NtrC</i> regulation but requires an <i>Lrp</i> -like activator protein," <i>J. Bacteriol.</i> 177:6432 (1995).	
		KIMURA, et al., "Production of Poly(3-hydroxybutyrate-co-4-hydroxybutyrate) by <i>Pseudomonas Acidovorans</i> ," <i>Biotechnol. Lett.</i> 14:445 (1992).	
		KINNAIRD, et al., "The complete nucleotide sequence of the <i>Neurospora crassa</i> am (NADP-specific glutamate dehydrogenase) gene," <i>Gene</i> 28:253-280 (1983).	
		KIRBY, et al., "Purification and properties of rabbit brain and liver 4-aminobutyrate aminotransferases isolated by monoclonal-antibody immunoabsorbent chromatography," <i>Biochem. J.</i> 230:481-488 (1986).	
		KLENK, et al., "The complete genome sequence of the hyperthermophilic, sulphate-reducing archaeon <i>Archaeoglobus fulgidus</i> ," <i>Nature</i> 390:364 (1997).	
		KUNIOKA, et al., "New bacterial copolymers produced in <i>Alcaligenes eutrophus</i> from organic acids," <i>Polym. Commun.</i> 29:174 (1988).	
		KWON, et al., "Brain 4-aminobutyrate aminotransferase. Isolation and sequence of a cDNA encoding the enzyme," <i>J. Biol. Chem.</i> 267:7215-7216 (1992).	
		LAGEVEEN, et al., "Formation of Polyesters by <i>Pseudomonas oleovorans</i> : Effect of Substrates on Formation and Composition of Poly-(R)-3-Hydroxyalcanoates and Poly-(R)-3-Hydroxyalenoates," <i>Appl. Environ. Microbiol.</i> 54:2924-2932 (1988).	
		LEE, et al., "Biosynthesis of copolymers consisting of 3-hydroxybutyric acid and medium-chain-length 3-hydroxyalcanoic acids from 1,3-butanediol or from 3-hydroxybutyrate by <i>Pseudomonas</i> sp. A33," <i>Appl. Microbiol. Biotechnol.</i> 42: 901-909 (1995).	

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Sheet	8	of	14
		Attorney Docket Number	MBX 017 CON (2)

OTHER ART - NON PATENT LITERATURE DOCUMENTS		
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	LEE, et al., "Enhanced biosynthesis of P(3HB-3HV) and P(3HB-4HB) by amplification of the cloned PHB biosynthesis genes in <i>Alcaligenes eutrophus</i> ," <i>Biotechnol. Lett.</i> 19: 771-774 (1997).	T
	LEMOIGNE & ROUKHELMAN, "Fermentation b-Hydroxybutyrique," <i>Annales des Fermentations</i> 5: 527-536 (1925).	
	LIN, et al., "Regulatory region with putA gene of proline dehydrogenase that links to the lux and the lux operons in <i>Photobacterium leiognathi</i> ," <i>Biochem. Biophys. Res. Commun.</i> 219:868 (1996).	
	MANDAL & GHOSH, "Isolation of a glutamate synthase (GOGAT)-negative, pleiotropically N utilization-defective mutant of <i>Azospirillum brasilense</i> : cloning and partial characterization of GOGAT structural gene," <i>J. Bacteriol.</i> 175:8024 (1993).	
	MAT-JAN, et al., "Anaerobic growth defects resulting from gene fusions affecting succinyl-CoA synthetase in <i>Escherichia coli</i> K12," <i>Mol. Gen. Genet.</i> 216:276-280 (1989).	
	MCBRIDE, et al., "Controlled expression of plastid transgenes in plants based on a nuclear DNA-encoded and plastid-targeted T7 RNA polymerase," <i>Proc. Natl. Acad. Sci. USA.</i> 91:7301-7305 (1994).	
	MCFALL & NEWMAN, "Amino Acids as Carbon Sources," in <i>Escherichia coli and Salmonella</i> , (Neidhardt, ed.), pp. 358-379, ASM Press: Washington, D.C., 1996.	
	MCLAGGAN, et al., "Interdependence of K <sup>+</sup> and glutamate accumulation during osmotic adaptation of <i>Escherichia coli</i> ," <i>J. Biol. Chem.</i> 269:1911 (1994).	
	MEASURES, "Role of amino acids in osmoregulation of non-halophilic bacteria," <i>Nature</i> 257:398 (1975).	
	METZER AND HALPERN, "In vivo cloning and characterization of the gabCTDP gene cluster of <i>Escherichia coli</i> K-12," <i>J. Bacteriol.</i> 172: 3250-3256 (1990).	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (use as many sheets as necessary)		Complete if Known	
		Application Number	10/773,816
Filing Date	February 6, 2004		
First Named Inventor	Gjalt W. Huisman		
Group Art Unit	1652		
Examiner Name	Charles L. Patterson, Jr.		
Attorney Docket Number	MBX 017 CON (2)		

Sheet 9 of 14

## OTHER ART -- NON PATENT LITERATURE DOCUMENTS

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		MILLER, et al., "Cloning and characterization of gdhA, the structural gene for glutamate dehydrogenase of <i>Salmonella typhimurium</i> ," <i>J. Bacteriol.</i> 157:171-178 (1984).	
		MIYAMOTO, et al., "Possible physiological roles of aspartase, NAD- and NADP-requiring glutamate dehydrogenases of <i>Pseudomonas fluorescens</i> ," <i>J. Biochem.</i> 112:52-56 (1992).	
		MOORE & BOYLE, "Nucleotide sequence and analysis of the spaA gene encoding biosynthetic arginine decarboxylase in <i>Escherichia coli</i> ," <i>J. Bacteriol.</i> 172:4631 (1990).	
		MORRISSEY, et al., "Partial cloning and characterization of an arginine decarboxylase in the kidney," <i>Kidney Int.</i> 47:1458 (1995).	
		MOUNTAIN, et al., "The <i>Klebsiella aerogenes</i> glutamate dehydrogenase (gdhA) gene: cloning, high-level expression and hybrid enzyme formation in <i>Escherichia coli</i> ," <i>Mol. Gen. Genet.</i> 199:141-145 (1985).	
		NAGASU, et al., "Nucleotide Sequence of the GDH gene coding for the NADP-specific glutamate dehydrogenase of <i>Saccharomyces cerevisiae</i> ," <i>Gene</i> 37:247-253 (1984).	
		NAKAMURA, et al., "Cloning and sequencing of novel genes from <i>Vibrio alginolyticus</i> that support the growth of K <sup>+</sup> uptake-deficient mutant of <i>Escherichia coli</i> ," <i>Biochim. Biophys. Acta</i> 1277:201 (1996).	
		NAM, et al., "Differential expression of ADC mRNA during development and upon acid stress in soybean (Glycine max) hypocotyls," <i>Plant Cell Physiol.</i> 38:1156 (1997).	
		OLIVER, et al., "Determination of the nucleotide sequence for the glutamate synthase structural genes of <i>Escherichia coli</i> K-12," <i>Gene</i> 60:1 (1987).	
		OWEN & PEN, eds., <i>Transgenic Plants: A Production System for Industrial and Pharmaceutical Proteins</i> John Wiley & Sons Ltd: England, 1996.	

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Sheet

10

of

14

## Complete if Known

Application Number	10/773,818
Filing Date	February 6, 2004
First Named Inventor	Gjalt W. Huisman
Group Art Unit	1652
Examiner Name	Charles L. Patterson, Jr.
Attorney Docket Number	MBX 017 CON (2)

## OTHER ART - NON PATENT LITERATURE DOCUMENTS

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		PARK, et al., "Isolation and characterization of recombinant mitochondrial 4-aminobutyrate aminotransferase," <i>J. Biol. Chem.</i> 268: 7636-7639 (1993).	
		PELANDA, et al., "Glutamate synthase genes of the diazotroph <i>Azospirillum brasilense</i> . Cloning, sequencing, and analysis of functional domains," <i>J. Biol. Chem.</i> 268:3099 (1993).	
		PÉREZ-AMADOR, et al., "Expression of arginine decarboxylase is induced during early fruit development and in young tissues of <i>Pisum sativum</i> (L)," <i>Plant Mol. Biol.</i> 28:997 (1995).	
		PERLAK, et al., "Modification of the coding sequence enhances plant expression of insect control protein genes," <i>Proc. Natl. Acad. Sci. USA</i> 88: 3324 (1991).	
		PETIT, et al., "PcrA is an essential DNA helicase of <i>Bacillus subtilis</i> fulfilling functions both in repair and rolling-circle replication," <i>Mol. Microbiol.</i> 29:261 (1998).	
		POIRIER et al., "Polyhydroxybutyrate, a Biodegradable Thermoplastic Produced in Transgenic Plants," <i>Science</i> 266:520-523 (1992).	
		PRESECAN, et al., "The <i>Bacillus subtilis</i> genome from gerBC (311 degrees) to licR (334 degrees)," <i>Microbiology</i> 143:3313 (1997).	
		RASTOGI, et al., "Cloning of tomato ( <i>Lycopersicon esculentum</i> Mill.) arginine decarboxylase gene and its expression during fruit ripening," <i>Plant Physiol.</i> 103:829 (1993).	
		REDENBACH, et al., "A set of ordered cosmid and a detailed genetic and physical map for the 8 Mb <i>Streptomyces coelicolor</i> A3(2) chromosome," <i>Mol. Microbiol.</i> 21:77 (1996).	
		REITZER, "Ammonia Assimilation and the Biosynthesis of Glutamine, Glutamate, Aspartate, Asparagine, L-Alanine, and D-Alanine," in <i>Escherichia coli</i> and <i>Salmonella</i> , (Neidhardt, ed.), pp. 391-407, ASM Press: Washington, D.C., 1996.	

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <small>(use as many sheets as necessary)</small>		Application Number	10/773,916
Sheet	11	of	14
Filing Date	February 6, 2004		
First Named Inventor	Gjalt W. Hulsman		
Group Art Unit	1652		
Examiner Name	Charles L. Patterson, Jr.		
	Attorney Docket Number	MBX 017 CON (2)	

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		SAITO & DOI, "Microbial synthesis and properties of poly(3-hydroxybutyrate-co-4-hydroxybutyrate) in <i>Comamonas acidovorans</i> ," <i>Int. J. Biol. Macromol.</i> 16:18 (1994).	
		SAITO, et al., "Microbial Synthesis and properties of Poly(3-hydroxybutyrate-co-4-hydroxybutyrate)," <i>Polym. Int.</i> 39:169 (1996).	
		SAKAKIBARA, et al., "Isolation and characterization of a cDNA that encodes maize glutamate dehydrogenase," <i>Plant Cell Physiol.</i> 36:789-797 (1995).	
		SAVIOZ, et al., "Comparison of proC and other housekeeping genes of <i>Pseudomonas aeruginosa</i> with their counterparts in <i>Escherichia coli</i> ," <i>Gene</i> 86:107 (1990).	
		SCHAAP, et al., "The <i>Agaricus bisporus</i> pruA gene encodes a cytosolic delta 1-pyrroline-5-carboxylate dehydrogenase which is expressed in fruit bodies but not in gill tissue," <i>Appl. Environ. Microbiol.</i> 63:57 (1997).	
		SCHERF, et al., "Purification and properties of 4-hydroxybutyrate coenzyme A transferase from <i>Clostridium aminobutyricum</i> ," <i>Appl. Environ. Microbiol.</i> 57:2699-2701 (1991).	
		SCHERF, et al., "Succinate-ethanol fermentation in <i>Clostridium kluveri</i> : purification and characterisation of 4-hydroxybutyryl-CoA dehydratase/vinylacetyl-CoA delta 3-delta 2-isomerase," <i>Arch. Microbiol.</i> 161: 239-245 (1994).	
		SCHLEYER, et al., "Transient, specific and extremely rapid release of osmolytes from growing cells of <i>Escherichia coli</i> K-12 exposed to hypoosmotic shock," <i>Arch. Microbiol.</i> 160:424 (1993).	
		SHAIKE, et al., "Control of Utilization of L-Arginine, L-Ornithine, Agmatine, and Putrescine as Nitrogen Sources in <i>Escherichia coli</i> K-12," <i>J. Bacteriol.</i> 163:938 (1995).	
		SMITH, et al., "Complete genome sequence of <i>Methanobacterium thermoautotrophicum</i> deltaH: functional analysis and comparative genomics," <i>J. Bacteriol.</i> 179:7135 (1997).	

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		Filing Date	February 6, 2004
		First Named Inventor	Gjalt W. Hulsman
		Group Art Unit	1662
Examiner Name	Charles L. Patterson, Jr.		
Sheet	12	of	14
		Attorney Docket Number	MBX 017 CON (2)

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		SNEDECOR, et al., "Selection, expression, and nucleotide sequencing of the glutamate dehydrogenase gene of <i>Peptostreptococcus asaccharolyticus</i> ," <i>J. Bacteriol.</i> 173:6162-6167 (1991).	
		SÖHLING & GOTTSCHALK, "Molecular analysis of the anaerobic succinate degradation pathway in <i>Clostridium kluyveri</i> ," <i>J. Bacteriol.</i> 178:871-880 (1996).	
		SÖHLING & GOTTSCHALK, "Purification and characterization of a coenzyme-A-dependent succinate-semialdehyde dehydrogenase from <i>Clostridium kluyveri</i> ," <i>Eur. J. Biochem.</i> 212: 121-127 (1993).	
		SOKHANSANDZH, et al., "Transfer of bacterial genes for proline synthesis in plants and their expression by various plant promoters," <i>Genetika</i> 33:906 (1997).	
		STEINBUCHEL and VALENTIN, "Diversity of bacterial polyhydroxyalcanoic acids," <i>FEMS Microbiol. Lett.</i> 128:219-28 (1995).	
		STEINBUCHEL and WIESE, et al., "A <i>Pseudomonas</i> strain accumulating polyesters of 3-hydroxybutyric acid and medium-chain-length 3-hydroxyalcanoic acids," <i>Appl. Microbiol. Biotechnol.</i> 37:891-97 (1992).	
		STIM & BENNETT, "Nucleotide sequence of the <i>adi</i> gene, which encodes the biodegradative acid-induced arginine decarboxylase of <i>Escherichia coli</i> ," <i>J. Bacteriol.</i> 175:1221 (1993).	
		STRAUB, et al., "Isolation, DNA sequence analysis, and mutagenesis of a proline dehydrogenase gene ( <i>putA</i> ) from <i>Bradyrhizobium japonicum</i> ," <i>Appl. Environ. Microbiol.</i> 62:221 (1996).	
		SVAB, et al., "Stable transformation of plastids in higher plants," <i>Proc. Natl. Acad. Sci. USA</i> 87: 8526-8530 (1990).	
		SYNTICHIKI, et al., "The amino-acid sequence similarity of plant glutamate dehydrogenase to the extremophilic archaeal enzyme conforms to its stress-related function," <i>Gene</i> 168: 87-92 (1996).	

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## Complete if Known

Application Number 10/773,916

Filing Date February 6, 2004

First Named Inventor Gjalt W. Huisman

Group Art Unit 1652

Examiner Name Charles L. Patterson, Jr.

Attorney Docket Number MBX 017 CON (2)

Sheet 13 of 14

## OTHER ART - NON PATENT LITERATURE DOCUMENTS

Examiner's Initials <sup>1</sup>	Cite No. <sup>2</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>3</sup>
		SZUMANSKI & BOYLE, "Analysis and sequence of the speB gene encoding agmatine ureohydrolase, a putrescine biosynthetic enzyme in <i>Escherichia coli</i> ," <i>J. Bacteriol.</i> 172:538, (1990).	
		TELLER, et al., "The glutamate dehydrogenase gene of <i>Clostridium symbiosum</i> . Cloning by polymerase chain reaction, sequence analysis and over-expression in <i>Escherichia coli</i> ," <i>Eur. J. Biochem.</i> 208:151-159 (1992).	
		THAKUR, et al., "Changes in the Electroencephalographic and $\gamma$ -Aminobutyric Acid Transaminase and Succinic Semialdehyde Dehydrogenase in the Allergen Induced Rat Brain," <i>Biochem. Int.</i> 16:235-243 (1998).	
		TOMB, et al., "The complete genome sequence of the gastric pathogen <i>Helicobacter pylori</i> ," <i>Nature</i> 388:539 (1997).	
		TZIMAGIORGIS, et al., "Molecular cloning, structure and expression analysis of a full-length mouse brain glutamate dehydrogenase cDNA," <i>Biochem. Biophys. Acta</i> 1089: 250-253 (1991).	
		TZIMAGIORGIS, et al., "Structure and expression analysis of a member of the human glutamate dehydrogenase (GLUD) gene family mapped to chromosome 10p11.2," <i>Hum. Genet.</i> 91:433-438 (1993).	
		VALENTIN, et al., "Identification of 4-hydroxyhexanoic acid as a new constituent of biosynthetic polyhydroxyalkanoic acids from bacteria," <i>Appl. Microbiol. Biotechnol.</i> 40:710-16 (1994).	
		VALENTIN, et al., "Identification of 4-hydroxyvaleric acid as a constituent of biosynthetic polyhydroxyalkanoic acids from bacteria," <i>Appl. Microbiol. Biotechnol.</i> 36:507-14 (1992).	
		VALENTIN, et al., "Identification of 5-hydroxyhexanoic acid, 4-hydroxyheptanoic acid and 4-hydroxyoctanoic acid as new constituents of bacterial polyhydroxyalkanoic acids," <i>Appl. Microbiol. Biotechnol.</i> 46:261-67 (1996).	
		VALENTIN, et al., "Production of poly(3-hydroxybutyrate-co-4-hydroxybutyrate) in recombinant <i>Escherichia coli</i> grown on glucose," <i>J. Biotechnol.</i> 58: 33-38 (1997).	

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/773,916
Sheet	14	of	14
		Attorney Docket Number	MBX 017 CON (2)

OTHER ART – NON PATENT LITERATURE DOCUMENTS		
Examiner's Initials*	Cits No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
		VALLE, et al., "Complete nucleotide sequence of the glutamate dehydrogenase gene from Escherichia coli K-12," <i>Gene</i> 27:193-199 (1984).
		VALLE, et al., "Nucleotide sequence of the promoter and amino-terminal coding region of the glutamate dehydrogenase structural gene of Escherichia coli," <i>Gene</i> 23: 199-209 (1983).
		WANG, et al., "In vivo cloning of proline genes and its expression in Escherichia coli," <i>Chin. J. Biotechnol.</i> 6:27 (1990).
		WATSON, et al., "Isolation and Characterization of a Second Arginine Decarboxylase cDNA from Arabidopsis (Accession No. AF009647)," <i>Plant Physiol.</i> 114:1569 (1997).
		WILLADSEN & BUCKEL, "Assay of 4-hydroxybutyryl-CoA dehydratase from <i>Clostridium aminobutyricum</i> ," <i>FEMS Microbiol. Lett.</i> 70:187-192 (1990).
		WILLIAMS, et al., "Biodegradable plastics from plants," <i>CHEMTECH</i> 26:38-44 (1996).
		WOLFF, et al., "Dehydrogenases involved in the conversion of succinate to 4-hydroxybutanoate by <i>Clostridium kluyveri</i> ," <i>Appl. Environ. Microbiol.</i> 59:1876-1882 (1993).
		YEE, et al., "Isolation and characterization of a NADP-dependent glutamate dehydrogenase gene from the primitive eucaryote <i>Giardia lamblia</i> ," <i>J. Biol. Chem.</i> 267:7539-7544 (1992).

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